7. Product of Divisors

Program Name: ProdDiv.java Input File: proddiv.dat

Given two positive integers `A` and `B`, find all numbers `X` such that `A <= X <= B`, and the product of all positive divisors of `X` is prime. A divisor of `X` is a number `N` such that `X%N = 0`.

Input
The first line has the number of testcases, `T`. `T` lines follow, one line for each testcase. Each testcase line contains `A` and `B (B >= A)` separated by a space.

Output
For each testcase, print out the number of integers X that meet the above condition.

Constraints
```
1 <= T <= 10
1 <= A <= 1000
1 <= B <= 1000
```

Example Input File
```
2
2 5
7 7
```

Example Output to Screen
```
3
1
```